1. (Twice Amended) Wavelength stabilizing apparatus for use in stabilizing the wavelength of a tunable laser to a target wavelength, the wavelength stabilizing apparatus comprising:

a wavelength measuring module for detecting a difference between an instantaneous wavelength of the laser and the target wavelength, and for generating an output signal which is representative of the difference; and

wherein the target wavelength is selected from a range of wavelengths corresponding to a tuning voltage applied across a top electrode and a bottom electrode of the tunable laser;

a control unit for receiving said output signal from said wavelength measuring module and for modifying electrooptical performance of a gain medium of the tunable laser in accordance with said output signal so as to lock the tunable laser to its target frequency.

2. (Amended) Wavelength stabilizing apparatus according to claim 1 wherein the tunable laser is an electrically pumped laser, and further wherein said control unit is adapted to adjust an injection current applied to the gain medium of the tunable laser so as to modify the electrooptical performance of the gain medium of the tunable laser.

3. (Amended) Wavelength stabilizing apparatus according to claim 1 wherein said tunable laser is an optically pumped laser, and further wherein said control unit is adapted to adjust intensity of a pump laser applied to the gain medium of the tunable laser so as to modify the electrooptical performance of the gain medium of the tunable laser.

4. (Amended) Wavelength stabilizing apparatus according to claim 3 wherein the pump laser is an electrically pumped laser, and further wherein said control unit is adapted to adjust an injection current applied to a gain medium of the pump laser so as to modify electrooptical performance of the gain medium of the tunable laser.

B' (contd)

5. (Twice Amended) A laser system comprising:

a tunable laser; and

wavelength stabilizing apparatus for use in stabilizing the wavelength of said tunable laser to a target wavelength, said wavelength stabilizing apparatus comprising:

a wavelength measuring module for detecting the difference between an instantaneous wavelength of the laser and the target wavelength, and for generating an output signal which is representative of the difference; and

wherein the target wavelength is selected from a range of wavelengths corresponding to a tuning voltage applied across a top electrode of the tunable laser;

a control unit for receiving said output signal from said wavelength measuring module and for modifying electrooptical performance of a gain medium of the tunable laser in accordance with said output signal so as to lock the tunable laser to its target frequency.

6. (Twice Amended) A method for stabilizing the wavelength of a tunable laser to a target frequency, said method comprising:

determining a target wavelength of the tunable laser from a range of wavelengths corresponding to a tuning voltage applied

across a top electrode and a bottom electrode of the tunable laser;

B' (cntd)

detecting a difference between an instantaneous wavelength of the laser and ~~a~~ the target wavelength, and generating an output signal which is representative of the difference; and

modifying electrooptical performance of a gain medium of the tunable laser in accordance with said output signal so as to lock the tunable laser to its target frequency.